XV.—*Note on a British Shell of the genus* Circe. By William King, Curator of the Museum of the Natural History Society of Northumberland, Durham, and Newcastle-upon-Tyne.

The Linnæan genus *Venus* has of late been very much subdivided by some conchologists, so that in addition to Lamarck's *Cytherea* and Poli's *Artemis*, we have now the genera *Circe*, *Chione*, *Meroe*, and several others.

Chione, as its name implies, is represented by such shells as *Cytherea Chione* and *C. Erycina*. *Circe*, according to some shell-labels in the British Museum, is represented by *Cytherea scripta* and *C. divaricata*. *Circe* somewhat resembles *Chione* in its teeth, but it differs from the latter in the pallial impression being slightly inflected, and in the cartilage fulcra being deeply sunk.

There appear to be three or more sections of the genus *Circe*. In one the species have transverse ribs (*C.* (*Cytherea*) *arabica*); in another they are furnished with diverging longitudinal ribs (*C.* (*Cytherea*) *divaricata*); and in the third they are very much compressed, especially at the umbones (*C.* (*Cytherea*) *scripta*).

I have entered upon this note with the view of showing that a British shell which has hitherto been called *Cyprina triangularis** belongs to the genus *Circe*. I was first led into this opinion from examining some specimens belonging to Mr. J. Alder, who dredged them in Oban Bay during the last summer.

The so-called *Cyprina triangularis* is decidedly a *Circe*, inasmuch as it possesses what appear to be the distinguishing characters of the genus, namely deeply-sunk cartilage fulcra, and a slight sinus in the pallial line. I may even go so far as to say, that it belongs to the section represented by the transversely ribbed species. As regards the dental character of the Oban shell, it is precisely that of the genus in general,—consisting of three diverging cardinal teeth in each valve, and an anterior tooth in the left one. It also possesses a well-defined lunette as in the Venuses, with which it further agrees in the absence of an epidermis.

In the deeply sunk cartilage fulcra, and the dental character just given,—in the possession of a well-defined lunette†, and in the want of an epidermis, the Oban shell is essentially different from all the true Cyprinas, either recent or fossil‡. Leaving out

* Turton's Shells of the British Islands, p. 136. tab. 11. figs. 19 and 20.

† According to a figure in D'Orbigny's 'Terrains Crétacés,' pl. 271, a species of *Cyprina* has a well-defined lunette.

‡ The genus *Cyprina* may be safely considered as represented by *C. islandica* (recent), *C. rustica* (Suffolk crag), and *C. angulata* (greensand). Many of the so-called Cyprinas do not appear to belong to this genus: *Cyprina consobrina* (D'Orbig.), notwithstanding its want of a pallial sinus, I consider a Venus; and *Cyprina Morrisii* (J. de C. Sow.) has teeth after the type of *Cytherea Lamarckii*.

of consideration the anterior tooth which it possesses in common with some other genera, *Cyprina* has only two cardinal teeth in each valve: another difference consists in the left valve of this genus being provided with a posterior callous tooth which fits into a broad depression in the opposite valve. The Oban shell may be said to have a posterior tooth, as there is a small groove for one of the kind in the right valve, but it does not differ from that of many of the Venuses*.

The only character which the Oban shell possesses to induce one to consider it a Cyprina is its slight pallial sinus; but, as before observed, this is general to the Circes, and it even belongs to some of the Venuses.

I am not aware who proposed the genus *Circe*; it is adopted by Mr. J. E. Gray in the Catalogue of the British Museum, and appears to be a good one.

XVI.—*Note on the Boring Apparatus of the Carnivorous Gasteropods, and of the Stone- and Wood-burrowing Bivalves.* By Albany Hancock, Esq.

During the investigation of the anatomy of the *Eolidæ* by Dr. Embleton and myself, we ascertained, as appears in the last Number of the 'Annals,' that the teeth of these animals are composed of silex. Directed by this interesting fact, I was induced to examine the nature of the instrument by which the carnivorous Gasteropods pierce the testaceous covering of bivalve and other shells. I found this apparatus in *Buccinum undatum* to be composed of rows of stout, much-curved spines or teeth, of great brilliancy, and as glossy and transparent as glass, and certainly to have no appearance whatever of horny tissue. They are so similar to those of *Eolis*, that there could be little doubt that they are formed of the same material; and accordingly, after subjecting them to the action of acid, such was found to be the case. Their capacity to drill holes in calcareous matter is therefore easily understood, without the necessity of supposing the aid of a solvent requisite, as surmised by Cuvier.

This result was to be expected after the discovery of the siliceous nature of the teeth of *Eolis*; but that the wood- and stone-burrowing Bivalves should work out their excavations by an instrument provided with the same material may, perhaps, appear somewhat startling. Such however I believe is the fact; a fact which if established will at once explain all the phænomena attending this much-controverted problem. It is not my intention

* I am acquainted with a greensand *Venus* which has a posterior tooth and depression as large as in *Cyprina*.